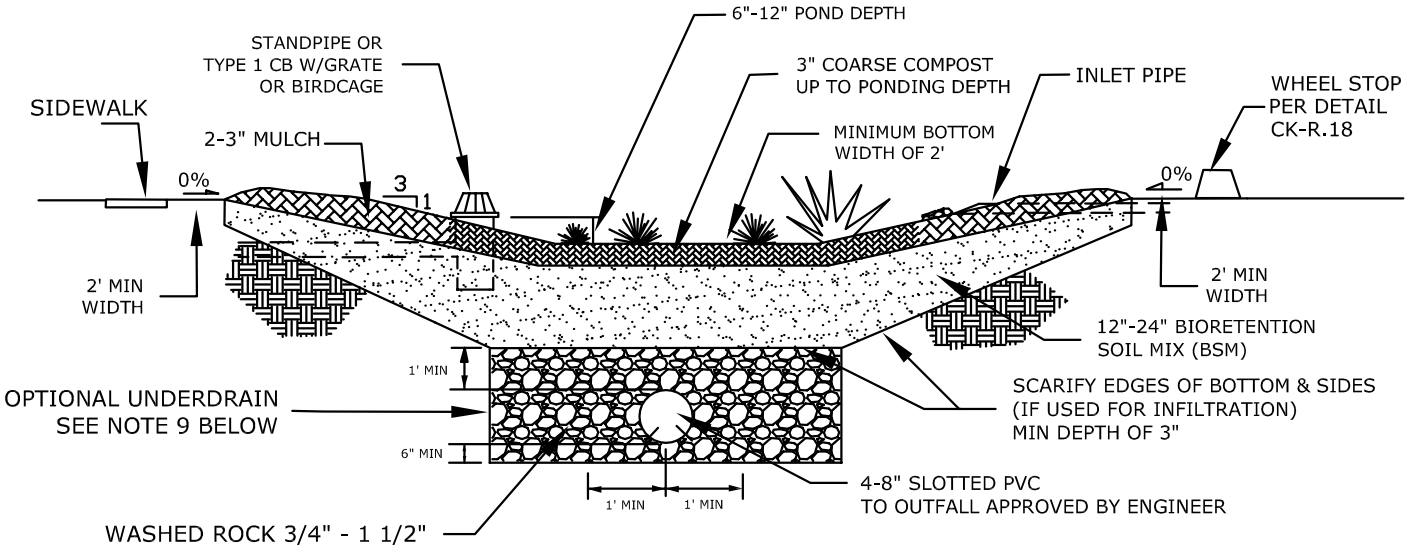
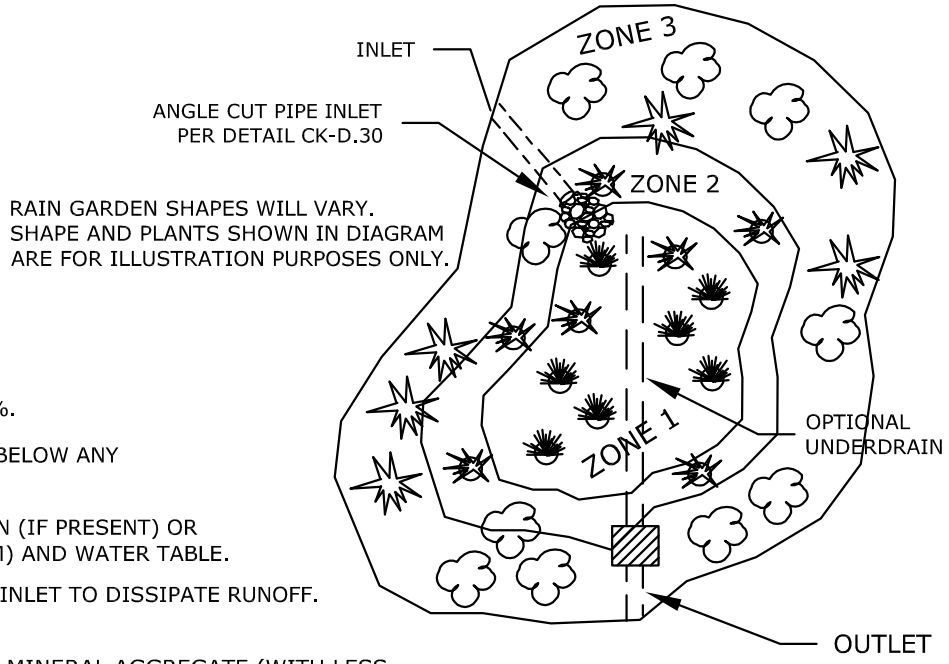
BIORETENTION CELL (ENGINEERED RAIN GARDEN)
PIPED INLET AND OUTLET

LAST REVISED: 01/12/15



SIDE VIEW

NTS



PLAN VIEW

NTS

NOTES

1. MAXIMUM BOTTOM SLOPE OF CELL IS 0.5%.
2. OVERFLOW POINT SHALL BE AT LEAST 6" BELOW ANY ADJACENT PAVEMENT AREA.
3. MINIMUM 3' DEPTH BETWEEN UNDERDRAIN (IF PRESENT) OR BOTTOM OF BIORETENTION SOIL MIX (BSM) AND WATER TABLE.
4. INSTALL STREAMBED COBBLE (1" - 4") AT INLET TO DISSIPATE RUNOFF.
5. BSM SHALL CONTAIN THE FOLLOWING:
   - AGGREGATE TO COMPOST RATIO: 60% MINERAL AGGREGATE (WITH LESS THAN 5% FINES), 40% COMPOST (MEET REQUIREMENTS IN WAC 173-350-220).
   - TOTAL BSM ORGANIC MATTER CONTENT OF 4-8% (BY DRY WEIGHT)
   - BSM DEPTH OF 12-24". ENHANCED TREATMENT REQUIRES MIN DEPTH OF 18".
6. MINIMUM SETBACK OF 5' FROM TOP OF BIORETENTION CELL TO BUILDING STRUCTURES AND PROPERTY LINES. DO NOT LOCATE IMMEDIATELY UPSLOPE OF BUILDING STRUCTURES.
7. SITE SPECIFIC LANDSCAPE MUST MEET BIORETENTION PLANT DESIGN CRITERIA LOCATED IN THE STORM LID SECTION OF THE PRE-APPROVED PLANS.
8. MAX 3" MULCH LAYER. MULCH MUST BE WOOD CHIPS CONSISTING OF SHREDDED OR CHIPPED HARDWOOD. MULCH SHALL NOT CONTAIN WEED SEEDS, GRASS CLIPPINGS, AND LARGE CHUNKS OF BARK.
9. IF OPTIONAL UNDERDRAIN IS USED:
   - USE SLOTTED SUBSURFACE DRAIN PVC PER ASTM D1785 SCH 40, NOT PERFORATED PVC OR FLEXIBLE SLOTTED HDPE
   - 0.5% MIN SLOPE
   - PROVIDE A CLEAN OUT EVERY 250-300 FEET
10. FOR CELLS IN PARKING LOTS, ADD NARROW GRAVEL FOOT PATHS ACROSS CELLS FOR FOOT TRAFFIC.

PLANTING ZONES

ZONE 1: AREA WITH FREQUENT STANDING WATER.

ZONE 2: AREA WITH OCCAISIONAL STANDING WATER, AND EXTENDED DRIER PERIODS.

ZONE 3: AREA WITH DRIER CONDITIONS.

CITY OF KIRKLAND

PLAN NO. CK–L.01

CITY OF KIRKLAND WASHINGTON

BIORETENTION CELL
PIPED I/O